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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/653,216	09/03/2003	Takanori Masui	116970	2609

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EXAMINER

GELAGAY, SHEWAYE

ART UNIT	PAPER NUMBER
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2137

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	04/05/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/653,216	<b>Applicant(s)</b> MASUI ET AL.	
	<b>Examiner</b> Shewaye Gelagay	<b>Art Unit</b> 2137	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 22 December 2006.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-13 and 15-18 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-13 and 15-18 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

1. This office action is in response to Applicant's amendment filed on December 22, 2006. Claims 1-13 and 15-18 have been amended. Claim 14 is cancelled. Claims 1-13 and 15-18 are pending.

### ***Specification***

2. In view of the amendment filed December 22, 2006, the Examiner withdraws the objection to the specification.

### ***Claim Rejections - 35 USC § 112***

3. In view of the amendment filed December 22, 2006, the Examiner withdraws the rejection of claims 9-10, 14 and 15 under 35 U.S.C. 112.

### **Response to Arguments**

4. Applicant's arguments filed December 22, 2006 have been considered but are moot in view of the new ground(s) of rejection.

### ***Claim Rejections - 35 USC § 112***

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 1-18 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which

Art Unit: 2137

applicant regards as the invention. Claims 1 and 17 recite the limitation "a deciding device for deciding whether or not to encrypt data". Since the data inputted is already an encrypted data, it is unclear how a deciding device decides whether or not to encrypt data inputted. Applicant has taught in the specification to perform decryption when the data inputted is encrypted and then a decryption module for decrypting encrypted data inputted by the data input interface and an encryption module for encrypting data decrypted by the decryption module using a key different from the first encryption key. (pages 3, lines 23-28) It is unclear whether the encrypted data is encrypted after decryption or if the encrypted data is re-encrypted. Appropriate correction is required.

7. Claims 2-13 and 18 are also rejected for being dependent on the rejected claims.

8. Claims 1-18 are rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential steps, such omission amounting to a gap between the steps. See MPEP § 2172.01. Claims 1 and 17 recite, "a deciding device for deciding whether or not to encrypt data inputted by the data input interface, wherein the encryption module encrypts data decided upon for encryption by the deciding device" and "an encryption module for encrypting data decrypted by the decryption module using a second encryption key different from the first encryption key" and "a storage device for storing data encrypted by the encryption module". After a decision whether or not to encrypt data is made the encryption module encrypts the data and the storage device stores the data encrypted by the encrypted module. The omitted steps are: if a decision is made not to encrypt data inputted, the claim limitation does not indicate what

Art Unit: 2137

will happen to the data because the storage device stores data encrypted by the encryption module not the inputted encrypted data.

9. Claims 2-13 and 18 are also rejected for being dependent on the rejected claims.

***Claim Rejections - 35 USC § 103***

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. Claims 1, 3, 15-16 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Davis U.S. Patent 5,805,706 in view of Achler US Patent 7,180,909.

As per claims 1 and 17:

Davis teaches an information processing device comprising:

a data input interface for inputting encrypted data; (Figure 2A; col. 2, lines 36-38)

a decryption module for decrypting encrypted data inputted by the data input interface using a decryption key forming a pair with a first encryption key used to encrypt the data; (Figure 2A, item 143; col. 3, lines 10-25; col. 4, lines 30-36)

an encryption module for encrypting data decrypted by the decryption module using a second encryption key different from the first encryption key; (Figure 2A, item 144; col. 4, lines 37-40) and

a storage device for storing data encrypted by the encryption module. (col. 4, lines 40-43)

Art Unit: 2137

Davis does not explicitly disclose a deciding device for deciding whether or not to encrypt data inputted by the data input interface, wherein the encryption module encrypts data decided upon for encryption by the deciding device. Achler in analogous art, however, discloses a deciding device for deciding whether or not to encrypt data inputted by the data input interface, wherein the encryption module encrypts data decided upon for encryption by the deciding device. (figure 11; col. 15, lines 14-63) Therefore it would have been obvious to one ordinary skill in the art to modify the method disclosed by Davis and with Achler in order to have a system with great deal of flexibility with regard to how transmitted data may be treated by deciding whether to encrypt or not encrypt data. (col. 15, lines 38-44; Achler)

As per claim 3:

The combination of Davis and Achler teaches all the subject matter as discussed above. In addition, Davis further discloses wherein the data input interface also inputs unencrypted data, (Figure 2A; col. 2, lines 36-38) and the encryption module also encrypts unencrypted data input by the data input interface. (Figure 2A, item 144; col. 4, lines 37-40)

As per claims 15:

The combination of Davis and Achler teaches all the subject matter as discussed above. In addition, Achler further discloses deciding means for deciding whether or not to encrypt data inputted by the data input interface, wherein the encryption module encrypts data decided upon for encryption by the deciding means. (figure 11; col. 15, lines 14-63)

Art Unit: 2137

As per claim 16:

The combination of Davis and Achler teaches all the subject matter as discussed above. In addition, Davis further discloses a printer for decrypting and printing data stored in the storage device. (col. 3, line 51-col. 4, line 3)

12. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Davis U.S. Patent 5,805,706 in view of Achler US Patent 7,180,909 and further in view of Saito U.S. Patent 7,093,295.

As per claim 4:

The combination of Davis and Achler teaches all the subject matter as discussed above. Both do not explicitly disclose a key generator for generating the second encryption key. Saito in analogous art, however, discloses a key generator for generating the second encryption key. (col. 7, lines 49-57) Therefore, it would have been obvious to one ordinary skill in the art at the time the invention was made to modify the device disclosed by Davis and Achler with Saito in order to ensure the security for the information and for the key used by generating the key when necessary for decryption.

13. Claims 2, 5-13 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Davis U.S. Patent 5,805,706 in view of Achler US Patent 7,180,909 in view of Saito U.S. Patent 7,093,295 and further in view of Blakley III, (hereinafter Blakley) U.S. Patent 5,677,952.

As per claims 5 and 18:

Art Unit: 2137

The combination of Davis, Achler and Saito teaches all the subject matter as discussed above. None of the references do explicitly disclose a memory controller for storing the second encryption key in the volatile memory. Blakley in analogous art, however, discloses a memory controller for storing the second encryption key in the volatile memory. (col. 6, lines 48-57) Therefore, it would have been obvious to one ordinary skill in the art at the time the invention was made to modify the device disclosed by Davis, Achler and Saito with Blakley in order to erase secret keys when the authorized user powers off the device. (col. 6, lines 48-57; Blakley)

As per claim 6

The combination of Davis, Achler and Saito teaches all the subject matter as discussed above. None of the references do explicitly disclose wherein the key generator generates the second encryption key using information characteristic to the device itself. Blakley in analogous art, however, discloses wherein the key generator generates the second encryption key using information characteristic to the device itself. (col. 5, lines 41-60) Therefore, it would have been obvious to one ordinary skill in the art at the time the invention was made to modify the device disclosed by Davis, Achler and Saito with Blakley in order to enhance the security of the key by utilizing an identification that is unique to each device. (col. 6, lines 48-57; Blakley)

As per claims 2 and 7:

The combination of Davis, Achler and Saito teaches all the subject matter as discussed above. None of the references do explicitly disclose wherein the key generator generates the second encryption key when power to the device is turned on.



Art Unit: 2137

Blakley in analogous art, however, discloses wherein the key generator generates the second encryption key when power to the device is turned on. (col. 6, lines 48-57)

Therefore, it would have been obvious to one ordinary skill in the art at the time the invention was made to modify the device disclosed by Davis, Achler and Saito with Blakley in order to erase secret keys when the authorized user powers off the device. (col. 6, lines 48-57; Blakley)

As per claims 8-10:

The combination of Davis, Achler and Saito teaches all the subject matter as discussed above. None of the references do explicitly disclose a media reader capable of being installed with a removable portable storage media storing key generation parameters for reading a key generation parameter stored on the installed portable storage media, wherein the key generator generates the second encryption key using the key generation parameter. Blakley in analogous art, however, discloses a media reader capable of being installed with a removable portable storage media storing key generation parameters for reading a key generation parameter stored on the installed portable storage media, wherein the key generator generates the second encryption key using the key generation parameter. (col. 5, lines 41-60) Therefore, it would have been obvious to one ordinary skill in the art at the time the invention was made to modify the device disclosed by Davis, Achler and Saito with Blakley in order to enhance the security of the key by utilizing an identification that is unique to each device. (col. 6, lines 48-57; Blakley)

As per claims 11 and 12:

Art Unit: 2137

The combination of Davis, Achler and Saito teaches all the subject matter as discussed above. None of the references do explicitly disclose a media reader capable of being installed with a removable portable storage media storing the encryption key, wherein the encryption module reads the second encryption key from the portable storage media installed in the media reader and performs encryption. Blakley in analogous art, however, discloses a media reader capable of being installed with a removable portable storage media storing the encryption key, wherein the encryption module reads the second encryption key from the portable storage media installed in the media reader and performs encryption. (col. 4, lines 40-65) Therefore, it would have been obvious to one ordinary skill in the art at the time the invention was made to modify the device disclosed by Davis, Achler and Saito with Blakley in order to enhance the security of the key by utilizing an identification that is unique to each device. (col. 6, lines 48-57; Blakley)

As per claim 13:

The combination of Davis, Achler and Saito teaches all the subject matter as discussed above. None of the references do explicitly disclose having encryption keys corresponding to each user using the device, wherein the encryption module performs encryption using an encryption key for the user corresponding to the data. Blakley in analogous art, however, discloses having encryption keys corresponding to each user using the device, wherein the encryption module performs encryption using an encryption key for the user corresponding to the data. (col. 6, lines 48-57) Therefore, it would have been obvious to one ordinary skill in the art at the time the invention was

Art Unit: 2137

made to modify the device disclosed by Davis, Achler and Saito with Blakley in order to erase secret keys when the authorized user logs off. (col. 6, lines 48-57; Blakley)

### ***Conclusion***

14. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. See Form PTO-892.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shewaye Gelagay whose telephone number is 571-272-4219. The examiner can normally be reached on 8:00 am to 5:30 pm.

Art Unit: 2137

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Emmanuel Moise can be reached on 571-272-3865. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Shewaye Gelagay

  
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SUPERVISORY PATENT EXAMINER